Annual Water Quality Report

Water testing performed in 2010

"When the well's dry, we know the worth of water."
Benjamin Franklin

City of Fond du Lac
Water Utility
PWS ID #: 42004699

WATER SYSTEM INFORMATION

This report is designed to inform you about the water quality and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.

We want our valued customers to be informed about their water utility. If you have any questions about this report or concerning your water utility, please contact Kathryn S. Scharf, Manager of Operations for the Fond du Lac Water Utility, at (920) 322-3682.

SOURCE OF WATER

The Fond du Lac Water Utility is supplied by groundwater pumped from 15 wells within and near the City of Fond du Lac. These 15 wells range in depth from 745 feet to 1,140 feet. In 2010, the Fond du Lac Water Utility distributed 1.58 billion gallons of water to 15,928 Fond du Lac water customers. The distribution system consists of six supply and distribution booster pump stations, five ground storage reservoirs, three elevated storage tanks, 220 miles of water main, and 1,826 fire hydrants.

EDUCATIONAL INFORMATION

The sources of drinking water, both tap water and bottled water, include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which shall provide the same protection for public health.

HEALTH INFORMATION

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the U.S. Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791) or visit the website at http://www.epa.gov.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their healthcare providers. U.S. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the U.S. Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791) or visit the website at http://www.epa.gov.

WATER QUALITY

The City of Fond du Lac Water Utility routinely monitors for constituents in your drinking water according to Federal and State regulations. The table displays the number of contaminants that were required to be tested in the last five years The results from the most recent year, between January 1st and December 31st, 2010 are shown. The Fond du Lac Water Utility performed testing of 17 inorganic contaminants, 2 microbiological contaminants, 2 disinfection by-product contaminants, 4 radioactive contaminants, 20 volatile organic contaminants, 27 synthetic organic contaminants including pesticides and herbicides, and 34 unregulated contaminants.

THE TREATMENT PROCESS:

The City of Fond du Lac adds three chemicals to the water supply.

Chlorine as a disinfectant: The City of Fond du Lac began chlorinating water in 1930. This disinfection kills or inactivates harmful microorganisms which can cause illness such as typhoid, cholera, hepatitis and giardiasis. Chlorine is also added for its "residual" properties which means the chlorine remaining in the water supply, or added after disinfection is first accomplished, is available to fight against potential contamination in water distribution and storage systems that might enter through leaks and pipe breakages. Chlorine can be added as a gas or in the form of hypochlorite either liquid or solid. Fond du Lac Water Utility switched from gas to liquid chlorine in 2009. Adding chlorine as a hypochlorite is much simpler, requires less training and is much safer for employees and the public.

Sodium Phosphate as an iron sequestering agent and corrosion inhibitor: Iron removal is a common municipal water treatment in central Wisconsin when groundwater is the drinking water source. This element does not cause adverse health effects, but in fact, are essential to the human diet. However, water containing excessive amounts of iron can stain clothes, discolor plumbing fixtures and sometimes add a "rusty" taste and look to the water. When sodium phosphate is added the soluble iron is sequestered and not allowed to precipitate out and cause discoloration. It has an additional benefit in that it reduces the corrosiveness of the water and thus reduces the amount of lead which leaches into the water. This chemical has been added since 1972.

Hydrofluosilicic acid to reduce tooth decay: This chemical is added to augment the natural fluoride found in our water supply and bring the residual up to the Department of Natural Resource's recommended level of 1.1 mg per liter. The Fond du Lac Water Utility closely monitors the level of fluoride in our system to assure proper concentrations. The Center for Disease Control has declared fluoridation one of the ten greatest public health advances of the 20th century. The City of Fond du Lac began fluoridation in July of 1950.

RESULTS OF LABORATORY TESTING - 2010 REPORTING YEAR

Contaminant	Viola-tion	Level Detected	Range	Unit	MCLG	MCL	Typical Source of Contamination
DISINFECTION BYPRODUCTS							
Haloacetic Acid (HAA5)	No	6	1 - 6	ppb	60	60	By-product of drinking water chlorination
Total Trihalomethanes (TTHM)	No	43.7	19.1 - 43.7	ppb	0	80	By-product of drinking water chlorination
INORGANIC CONTAMINANTS							
Antimony Total	No	0.2	nd - 0.2	ppb	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic	No	2	2 - 3	ppb	n/a	10	Erosion of natural deposits; Runoff from orchards or from glass and electronics production wastes
Barium	No	0.057	.034 - .057	ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Cadmium	No	0.3	nd - 0.3	ppb	5	5	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; Runoff from waste batteries and paints
Chromium	No	1	nd - 1	ppb	100	100	Discharge from steel and pulp mills; Erosion of natural deposits
Copper	No	0.57	*	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Fluoride	No	0.2	0.1 - 0.2	ppm	4	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer & aluminum factories
Lead	No	6.10	*	ppb	0	AL=15	Corrosion of household plumbing systems; Erosion of natural deposits
Nickel	No	7.3000	1.4000-7.300	ppb	-	100	Nickel occurs naturally in soils, ground water and surface waters and is often used in electroplating, stainless steel and alloy products.
Nitrate	No	0.07	nd - 0.7	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium	No	5	3 - 5	ppb	50	50	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Sodium	No	41.00	19.00 - 41.00	ppm	n/a	n/a	n/a
* 0 of 30 results were above the action level							
RADIOACTIVE CONTAMINANTS							
Gross Alpha Excluding R&U	Yes	7.9*	nd - 11.9	pCi/l	0	15	Erosion of natural deposits
Gross Alpha Including R&U	No	7.9	nd - 11.9	n/a	n/a	n/a	Erosion of natural deposits
Gross Beta Particle Activity	No	3.7	2.0 - 3.7	pCi/l	n/a	n/a	Decay of natural and man-made deposits. MCL units are in milirem/year. Calculation for compliance with MCL is not possible unless level found is greater than 50 pCi/l.
Radium (226 + 228)	No	4.8	nd - 9.1	pCi/l	0	5	Erosion of natural deposits
* Although the highest gross alpha detected was below the MCL at 7.9, a violation is indicated due to our original 2008 violation of non-compliance. The final stipulation agreement paperwork between the City of Fond du Lac and the Department of Justice was not completed until January of 2010. An "active" violation anytime during 2010 results in a YES in this field.							
UNREGULATED CONTAMINANTS							
Bromodichloromethane	No	1.50	nd - 1.50	ppb	n/a	n/a	n/a
Bromoform	No	37.00	15.00 - 37.00	ppb	n/a	n/a	n/a
Chloroform	No	0.30	nd - 0.30	ppb	n/a	n/a	n/a
Chloromethane (Methylchloride)	No	0.18	nd - 0.18	ppb	n/a	n/a	n/a
Dibromochloromethane	No	7.00	1.10 - 7.00	ppb	n/a	n/a	n/a
Dibromomethane	No	0.89	nd - 0.89	ppb	n/a	n/a	n/a
Sulfate	No	180.00	57.00-180.00	ppm	n/a	n/a	n/a
VOLATILE ORGANIC CONTAMINANTS							
Dichloromethane	No	0.0	nd - 0.2	ppb	0	5	Discharge from pharmaceutical and chemical factories

DEFINITION OF TERMS

AL - Action Level:
The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

MCL - Maximum Contaminant Level
The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.

MCLG - Maximum Contaminant Level Goal
The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.

mrem/year - Millirems per Year
A measure of radiation absorbed by the body.

pCi/l - Picocuries per Liter
A measure of radioactivity.

ppm - Parts per million, or milligrams per liter (mg/l)

ppb - Parts per billion, or micrograms per liter (ug/l)

TCR - Total Coliform Rule

TT - Treatment Technique
A required process intended to reduce the level of a contaminant in drinking water.

Explanation of Units:
Since one gallon of water weighs 8.34 pounds, on million gallons weighs 8,340,000 pounds. When 8.34 pounds of a pure substance is added to one million gallons of water the concentration is one part per million. Therefore: (ppm) = (mg/l) = 1 in 1,000,000 gallons
When comparing 1 part per million to other units of measure we see just how small it is.

In Units	1 part per million
Length	1 inch in 16 miles
Time	1 minute in 2 years
Money	1 cent in $10,000

Only Tap Water Delivers℠

As your water provider, we're constantly monitoring your water to make sure that it's safe and available 24/7. We make sure that there's an adequate supply of water to meet the needs of the community.

We carefully treat water to remove any potentially harmful contaminants. We disinfect water to make sure it's still safe when it reaches your faucet. And we maintain an elaborate underground network of mains and pipes to get it there.

We deliver more than water. We deliver public health, fire protection, support for the economy, and the overall quality of life we enjoy. Our job is to ensure that your water keeps flowing not only today, but well into the future. It's all part of our commitment to serve you and everyone in our community.